

Sanpoil Project

Invasive Plants Report

Prepared by:

Travis Fletcher

Rangeland Management Specialist

April 3, 2018

Updated by:

Brandon Weinmann

Range/Invasive Plants Program Manager

May 22, 2020

for:

Republic Ranger District

Colville National Forest

In accordance with Federal civil rights law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident.

Persons with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotape, American Sign Language, etc.) should contact the responsible Agency or USDA's TARGET Center at (202) 720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, program information may be made available in languages other than English.

To file a program discrimination complaint, complete the USDA Program Discrimination Complaint Form, AD-3027, found online at http://www.ascr.usda.gov/complaint_filing_cust.html and at any USDA office or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call (866) 632-9992. Submit your completed form or letter to USDA by: (1) mail: U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, SW, Washington, D.C. 20250-9410; (2) fax: (202) 690-7442; or (3) email: program.intake@usda.gov.

USDA is an equal opportunity provider, employer and lender.

Table of Contents

1.0 Relevant Laws, Regulations, and Policy 1

 1.1 Regulatory Framework..... 1

 1.3 Desired Condition..... 5

2.0 Environmental Effects..... 5

 2.1 Existing Condition..... 5

 2.2 Direct and Indirect Effects..... 6

 2.3 Design Elements 8

 2.4 Cumulative Effects 8

 2.5 References 9

To refresh table of contents, click in it and press F9

1.0 Relevant Laws, Regulations, and Policy

1.1 Regulatory Framework

Land Management Plan

The Colville National Forest Land Management Plan (LMP) provides standards and guidelines for Invasive Plants. This report incorporates the LMP by reference and is tiered to the Land Management Plan's Final Environmental Impact Statement (USDA Forest Service 2019).

The below standard from page 68 of the LMP would apply to the Sanpoil project:

- Inspect gravel, fill, sand, and rock materials from National Forest System lands and from external sources to ensure it is weed free before using on the national forest. Treat and quarantine materials from infested sources for a period sufficient to observe weed seed germination before use.
- Use only pelletized or certified weed-free feed for pack, saddle and livestock on all National Forest System lands.
- Use weed-free straw and mulch for all projects conducted or authorized by the Forest Service, on National Forest System Lands.
- Clean all heavy equipment, such as bulldozers, skidders, excavators, graders, backhoes, dump trucks and logging equipment that will operate outside the road prism before entering National Forest System lands to remove invasive plant seeds and material. Clean all vehicles authorized by written contract that operate outside of open road (level 2 through 5) prisms before entering National Forest System lands.
- All agreements, contracts, or special-use permits that allow vehicles and equipment to operate outside the road prism on National Forest System lands will contain clauses or language that require all vehicles and equipment to be cleaned prior to its use on National Forest System lands to prevent introduction, establishment, and spread of invasive species.

Direction is also provided by the Colville National Forest Weed Prevention Guidelines document, which was developed to minimize the introduction of noxious weeds and minimize conditions that favor the establishment of noxious weeds. The following are eight major objectives of the Colville National Forest Weed Prevention Guidelines:

1. Education: Ensure public and employee knowledge of noxious weeds to help reduce both the spread rate of existing weeds and the risk of infestation by new noxious weeds.
2. Project Need: Weigh the need of the proposed project against the risk of weed infestation.
3. Minimize Transportation of Weed Seed: Reduce the spread of existing weeds across the forest and the risk of introducing new weed species to project sites and other areas of the forest.

4. Incorporate Weed Prevention Measures into project planning and design, and special use permit administration: Ensure that the risks of weed introduction and/or spread, and the mitigation required to minimize that risk are properly considered before ground disturbing activities begin.
5. Pre-activity, Inventory and Analysis: Minimize the spread of existing weeds into new project areas.
6. Minimize ground disturbance and the exposure of mineral soil during project activities: Reduce the potential for weeds to become established on new sites and the need to conduct re-vegetation activities.
7. Re-vegetate disturbed areas: Re-establish desirable vegetation of exposed mineral soil due to project activity and unplanned events such as fire, flood, or other disturbances to minimize the introduction and/or spread of noxious weeds.
8. Monitor: Conduct project follow-up and review to determine success of weed treatments and re-vegetation efforts to detect new weed sites requiring treatment and make corrections as necessary. Monitoring is a part of every project and as such, needs to be covered in NEPA discussions, and planned for as a part of implementation.

Federal Law

1. Organic Administration Act of 1897 (16 U.S.C. §§473 *et seq.*). Authorizes the Secretary to establish regulations governing the occupancy and use of national forests and to protect national forests from destruction.
2. Knutson-Vandenberg Act of June 9, 1930 (16 U.S.C. 576, 576a-576b). Section 3 of the Act, codified at 16 U.S.C. 576b. Provides that the Secretary may require any purchaser of national forest timber to make deposits of money in addition to the payments for the timber, to cover the cost to the United States of planting, sowing with tree seeds, and cutting, destroying or otherwise removing undesirable trees or other growth, on the national forest land cut over by the purchaser, in order to improve the future stand of timber, or protecting and improving the future productivity of the renewable resources of the forest land on such sale area.
3. Anderson-Mansfield Reforestation and Revegetation Act of October 11, 1949 (16 U.S.C. 581j (note), 581j, 581k). Requires the agency to accelerate and provide a continuing basis for the needed reforestation and re-vegetation of National Forest System lands and other lands under Forest Service administration or control.
4. Multiple-Use Sustained-Yield Act of 1960 (16 U.S.C. §§528 *et seq.*). Authorizes the Secretary to: administer National Forest System lands for outdoor recreation, range, timber, watershed, and wildlife and fish purposes; to develop the surface renewable resources for multiple use and sustained yield of several products and services to be obtained from these lands, without impairment of the productivity of the land; and, to cooperate with interested

State and local governmental agencies and others in the development and management of the national forests. The Act also recognizes and clarifies Forest Service authority and responsibility to manage wildlife and fish on national forests.

5. Forest and Rangeland Renewable Resources Planning Act (RPA) of 1974 as amended by the National Forest Management Act (NFMA) of 1976. Section 6 of the Act codified at 16 U.S.C. §§1600 et seq. Provides for the Secretary to promulgate regulations, under the principles of the Multiple-Use Sustained-Yield Act of 1960, specifying guidelines for land management plans developed to achieve the goals of the Program. The guidelines should provide for diversity of plant and animal communities based on the suitability and capability of the specific land area in order to meet overall multiple-use objectives. Further, within the multiple-use objectives of a land management plan adopted pursuant to this section, provide, where appropriate, to the degree practicable, for steps to be taken to preserve the diversity of tree species similar to that existing in the region controlled by the plan.
6. Consolidated Appropriations Resolution, 2003. Section 323 of the Act, codified at 16 U.S.C. 2104. Provides authority to the Forest Service to enter into stewardship contracts with public or private entities or persons to perform services to achieve land management goals for the National Forest System lands that meet local and rural community needs. Stewardship agreements may be entered into for other land management goals such as the following: removal of vegetation or other activities to promote healthy forest stands, reduction of fire hazards; watershed restoration and maintenance; restoration and maintenance of wildlife and fish habitat; prevention and control of invasive species; and reestablishing native plant species.
7. Healthy Forests Restoration Act of 2003 (H.R. 1904), (16 U.S.C. 6501-6502, 6511-18, 6541-42, 6571-78). Provides improved statutory processes for hazardous fuel reduction projects on certain types of at-risk National Forest System and Bureau of Land Management lands and also provides other authorities and direction to help reduce hazardous fuel and restore healthy forest and rangeland conditions on lands of all ownerships.
8. The Plant Protection Act of 2000 (7 U.S.C. 7701 et seq) as amended by the Noxious Weed Control and Eradication Act of 2004 (P.L. 108-412). Among other provisions, the Plant Protection Act authorizes the Secretary of Agriculture to prohibit or restrict the importation, entry, exportation, or movement in interstate commerce of any plant, plant product, biological control organism, noxious weed, article, or means of conveyance, if the Secretary determines that the prohibition or restriction is necessary to prevent the introduction into the United States or the dissemination of a plant pest or noxious weed within the United States. The Act defines the term “Noxious Weed”.
9. Wyden Amendment (P.L. 109-54, Section 434). Authorizes the Forest Service to enter into cooperative agreements to benefit resources within watersheds on National Forest System lands. Agreements may be with willing Federal, Tribal, State, and local governments, private and non-government entities, and landowners to conduct activities on public or private lands. Under this authority, the Forest Service may enter into agreements to support or conduct invasive species management activities on aquatic and terrestrial areas owned by local and State governments, Tribes, other Federal agencies, and private individuals or organizations,

to benefit and protect the National Forest System and other resources within a watershed at risk from invasive species.

10. Clean Water Act of 1977 (33 U.S.C. 1251, 1254, 1323, 1324, 1329, 1342, 1344; 91 Stat. 1566). This act amends the Federal Water Pollution Control Act of 1972. Section 313 is strengthened to stress Federal agency compliance with Federal, State and local substantive and procedural requirements related to the control and abatement of pollution to the same extent as required of non-governmental entities. Invasive species management to improve watershed condition supports the Act's charge to maintain the ecological integrity of our nation's waters, including the physical, chemical and biological components.
11. National Environmental Policy Act of 1969 (16 U.S.C. 4321). Requires agencies to analyze the physical, social, and economic effects associated with proposed plans and decisions, to consider alternatives to the action proposed, and to document the results of the analysis. The provisions of NEPA and the Council on Environmental Quality implementing regulations apply to invasive species management (FSM 1950; FSH 1909.15).
12. Federal Noxious Weed Act of 1974 (7 U.S.C. 2814) - Although the Plant Protection Act superseded and repealed most of the Federal Noxious Weed Act of 1974 (FNWA), it left intact section 15 of the act, "Management of undesirable plants on Federal lands" (7 U.S.C. 2814). Section 15 of the FNWA requires Federal land management agencies to develop and establish a management program for control of undesirable plants that are classified under State or Federal law as undesirable, noxious, harmful, injurious, or poisonous, on Federal lands under the agency's jurisdiction (7 U.S.C. 2814(a)). The Act also requires the Federal land management agencies to enter into cooperative agreements to coordinate the management of undesirable plant species on Federal lands where similar programs are being implemented on State and private lands in the same area (7 U.S.C. 2814(c)). The Secretaries of Agriculture and Interior must coordinate their respective control, research, and educational efforts relating to noxious weeds (7 U.S.C. 2814(f)). USDA's Departmental Regulation 9500-10 sets forth the Departmental policy relating to the management and coordination of invasive plants activities among the agencies within USDA and other entities.
13. Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), (7 U.S.C. s/s 136 et seq.). Describes pesticide regulations and requirements related to hazardous material use and worker protection standards for employees in the planning and application of pesticides.

Executive Orders

1. Executive Order 13112 - Directs federal agencies whose actions may affect the status of invasive species to (1) prevent the introduction of invasive species, and (2) detect and respond rapidly to and control populations of such species in a cost effective and environmentally sound manner, as appropriations allow.

1.3 Desired Condition

Invasive species (including non-native plants, animals, insects, and pathogens in aquatic and terrestrial habitats) do not threaten the capability of the forest to provide for the desired conditions described throughout the LMP. Impacts of invasive species are minimized through an integrated approach that emphasizes prevention, early detection, and timely treatment and includes cooperative management with neighbors within affected watersheds. In cooperation with partners, proactive invasive response plans are prepared or existing plans reviewed to facilitate rapid response to new invasions (LMP 68).

2.0 Environmental Effects

2.1 Existing Condition

Activities such as road building, timber harvesting, and burning, which may result from the Sanpoil project, have the potential to cause an increase in the extent of invasive plants above the current level of infestation. Since there are noxious weeds and invasive species currently present within the project boundary, any ground disturbing activity that would create a bare soil condition could allow such species to establish in these areas.

The following table displays the noxious weed and invasive species known to exist within and around the project area and their control category as determined by the Washington State Noxious Weed Control Board (Washington State Noxious Weed Control Board 2018).

Table 1. Noxious Weed/Invasive Species and Control Categories.

SPECIES	CONTROL CATEGORY
Canada Thistle	Class C
Bull Thistle	Class C
Absinth Wormwood	Class C
Houndstongue	Class B
Yellow Hawkweed	Class B
Orange Hawkweed	Class B Designate
Diffuse Knapweed	Class B
Spotted Knapweed	Class B Designate
Common St. Johnswort	Class C
Common Mullein	
Oxeye Daisy	Class B
Cheatgrass	

The Washington State Noxious Weed Control Board has developed control categories to prioritize noxious weed species based on the seriousness of the threat they pose. Noxious weeds are classified into three major classes; Class A, Class B, and Class C. Because of their persistence, a few unclassified invasive plants also merit consideration including common mullein and cheatgrass and will be considered where appropriate.

No Class A weeds are known to exist within the project area.

Class B weeds are non-native species which are presently limited to portions of the state. These species are designated for control in regions where they are not yet widespread. Preventing new infestations in these areas is a high priority. In areas where Class B species are already abundant, control is decided at the County level with containment as a primary goal. For species listed as Class B Designate, control is required. For species listed as Class B, control is required in vehicle corridors and areas of limited distribution and encouraged in areas of large infestations.

Class C weeds are species that are already present and widespread across the state and control is encouraged in areas of large infestations, but not required.

Inventory Results

Several noxious weed or invasive species are present within the project area though their precise abundance is not known due to the fact that noxious weed infestations fluctuate annually based on new plant recruitment and treatment efforts. The 2014 surveys of the general planning area revealed that there were approximately 384 acres infested with invasive plants. Invasive plant treatments were conducted in 2014. The area was surveyed and treated again in 2016, when 53 acres were found to be infested with invasive plants. Most of the infestations do not occupy large areas and are often just a few plants at scattered locations within the project area.

Most invasive plant populations found within the Sanpoil project area are associated with forest roads, past log landings, and skid trails. Roads are areas of disturbance with bare soil which is susceptible to noxious weed establishment, and they act as source areas from which vehicles may spread invasive plants. Invasive plant spread can be attributed to nearby populations, which provide a seed source and the number of miles of roads open to vehicles (Masters and Sheley 2001).

Existing dense forest canopy on undisturbed timbered sites provide a natural deterrent to noxious weed invasion. The invasive plants identified above are not generally shade tolerant, although yellow and orange hawkweed can inhabit areas with moderate shading. Any ground disturbance can create unoccupied niches for and invasive species to establish if seed sources exist within close proximity.

2.2 Direct and Indirect Effects

Alternative 1 - No Action

Given that several different species of invasive plants occur within the project area and that some of the non-Forest Service lands bordering the Sanpoil project are infested with them, it is likely that invasive plants would continue to occur within the project area. Given similar abilities and funding to treat invasive plants in the future it is expected that the overall amount of acres infested would rise and fall, but slightly increase compared to current levels.

Alternative 2 - Proposed Action

The proposed action consists of a host of vegetation treatments and fuel disposal methods that are expected to reduce the build-up of natural forest fuels and provide for improved forest health within the project area. Creating more open stands where sunlight could reach the ground would provide a more favorable environment for invasive plants to become established and spread. Many invasive plants are out-competed by native vegetation in shaded environments, but it is anticipated that the thinning treatments would not provide enough shade in most areas to deter noxious weed establishment and spread.

Disturbance appears to be important early in the invasion process because it creates vacant niches that alien plants can occupy (Masters and Sheley 2001). Disturbed areas would likely be at moderate risk for noxious weed infestation if seed sources are present and readily available. Timely implementation of design elements would likely reduce this risk to acceptable levels.

Table 2. Estimated Maximum Disturbance by Activity.

Disturbance Activity*	Estimated Maximum Disturbance
Mechanical Harvest	5% of activity area
Road Construction & Reconstruction	24 feet wide for the length of the road
Road Decommissioning / Abandonment	24 feet wide for the length of the road
Prescribed Fire	3% of activity area
Gravel Pits & Barrow Sites	100% of activity area

* Soil disturbance as a result of grazing activities are based on areas such as water developments, trails, salting areas, and corrals.

Table 3. Estimated Maximum Disturbance for the Proposed Action.

Disturbance Activity	Total Amount of Disturbance	Acres of Disturbed Soil
Mechanical Harvesting Commercial thinning = 3,846 acres Commercial thinning w/ openings = 1,270 acres Shelterwood treatment = 255 acres Small pine thinning = 519 acres	5,890 acres	295
Roads Road Construction .25 miles Temporary road construction 11.6 miles	.25 mile 11.6 miles	35
Road Decommissioning / Abandonment Road Decommissioning 2.6 miles	2.6 miles	8
Prescribed Fire¹ Underburn = 8,666 acres Mechanical piling and burn (MPB) = 7,256 acres Hand piling and burn (HPB) = 444 acres MPB/HPB = 463 acres	10,103 acres	303
TOTAL		641

¹Prescribed fire was calculated by considering that entire units will not be burned, only portions of units. Areas to be burned are based on fuels treatments and represented as a percentage of total unit acres. Hand Piling = 40%, Underburning = 70%, Mechanical Piling 50%.

The Proposed Action could add an **additional 641 acres** of soil disturbance within the project area. This amount of soil disturbance could potentially allow invasive plants to establish in areas where they do not currently exist despite best efforts to prevent such establishment. Invasive plants produce a large amount of seed and are well adapted to quickly establish in favorable habitat where opportunity exists. The amount of potential Invasive plant habitat resulting from this project is not likely to create a substantial increase in the amount of acres infested with invasive plants within the project area if standard practices are followed and continued invasive plant treatment occurs. Therefore, all proposed activities of the Sanpoil project meet the LMP Standards for Invasive Species.

By adhering to management practices under management objectives 3, 5, 6 and 7 of the *Colville National Forest Noxious Weed Prevention Guidelines*, invasive plant populations are not likely to spread substantially and could likely decrease. A decrease in the total number of acres infested with invasive plants could be realized due to control efforts and design elements within the project area.

2.3 Design Elements and Standard Practices

The design elements and standard practices identified here are those that address invasive plant concerns specific to this project. These measures should be implemented in a timely manner in order to successfully reduce anticipated effects.

Design Elements:

- Revegetate where soil is disturbed by harvest, fuel disposal, or road activities (typically including tractor skid trails, cut-to-length trails, landings, temporary roads, road decommissioning and road cut and fill slopes). Utilize only approved noxious weed-free seed for revegetation efforts.

Standard Practices:

- Invasive plants that occur within the project area and on Forest Service routes used to access the project area will be treated prior to any harvest or ground disturbing activities.
- All equipment that will operate outside the limits of the road prism must be cleaned, in order to remove all mud, dirt and plant parts, before entering National Forest System Lands. Equipment must also be cleaned when moving from one sale area to a different sale area.
- Treat for invasive plants and complete revegetation seeding in areas of road decommissioning, restoration and closure prior to the roads being made un-drivable.
- Use ONLY gravel, fill material and rock from certified weed-free sources.

2.4 Cumulative Effects

Cumulative effects for invasive plants were analyzed at the project scale. This scale was chosen for effects analysis because it is the level at which activities will change the landscape and potentially the risk for invasive plant establishment and spread. Relevant past present and reasonably foreseeable future

actions found in appendix A of the EA were considered. None of these projects would have an effect on invasive plants. Projects would not affect invasive plants because they do not have the potential to contribute to the amount of invasive plants or the spread of invasive plants due to temporal or spatial separation allowing for invasive plants to remain within relevant thresholds.

2.5 References

Masters, Robert A. and Roger L. Sheley 2001. Principles and practices for managing rangeland invasive plants: *Journal of Range Management* 54(5): 502-517.

U.S. Department of Agriculture, Forest Service. 2019. Colville National Forest Land Management Plan, Final Environmental Impact Statement, and Record of Decision. Pacific Northwest Region, Portland, OR.

U.S. Department of Agriculture, Forest Service, Colville National Forest. 1998. Environmental Assessment, Integrated noxious weed treatment. Unpublished. Colville National Forest. Colville, WA.

U.S. Department of Agriculture, Forest Service, Colville National Forest. 1999. Noxious Weed Prevention Guidelines for the Colville National Forest. Unpublished guidelines. Colville National Forest. Colville, WA.

Washington State Noxious Weed Control Board. 2018. Washington State Noxious Weed List. On-line database. http://www.nwcb.wa.gov/weed_list/weed_list.htm